SITE NUMBER: B-R3-02
LOCAL NAME: Tall Timbers
WRIA: 20.0174B

NORTH COAST OFF CHANNEL SITE INVENTORY DATA

RIVER SYSTEM: Bogachiel **DATE:** 1/5/89 **OBSERVER:** Nettnin

CHANNEL TYPE: Terrace tributary

TRIBUTARY TO: Bogachiel R. - 20.0162

SITE LOCATION: R.B. @ River mile - 8.4 (WDF)

LEGAL DESCRIPTION:

	UPPER END	LOWER END	RIVER TEMP
WATER TEMP:	48 F	47 F	43F
FLOW (CFS):	0.25- 0.5	2 - 3	

SUBSTRATE TYPE: Silty mud.

SITE SIZE: **Length**- 600 m
Width- Surface = 3 - 4 ft (excluding pond)
Channel = 5 - 8 ft (excluding pond)
Depth- 12 to 18 inch max. (excluding pond)

WATER SOURCE: Small springs.

DIRECTIONS TO SITE: Head north from Forks on Hwy 101. Turn left just beyond m.p. 193 (1.0 mile north of Forks) onto the La Push Rd. Proceed west on the La Push Rd approx. 1.2 miles then turn left (just beyond the Quillayute Prairie Rd) onto a gravel logging road (ITT Rayonier). This logging road ends near the confluence of the Calawah and Bogachiel Rivers. B-R3-02 is located just to the west of the end of the road (see maps).

FISH ACCESS AND CURRENT USE: Juvenile coho appear to have free access to the lower and middle reaches of B-R3-02. A road crosses the channel in the upper reaches and helps to form a small ponded area. The culvert does not appear passable to juveniles. No fish were observed.

FLOODING POTENTIAL: Low.

LANDOWNER: ITT Rayonier.

COMMENTS & RECOMMENDATIONS: B-R3-02 enters the river on a glide. At lower river levels a plunge may occur at the mouth. B-R3-02 has good cover throughout and appears to contain some very good coho rearing area. A lack of pool area in the mid and lower reaches, however, might make the habitat more suitable for trout. Construction of a beaded channel and/or installation of controls could increase and enhance the available coho rearing area. Flat ground and a nearby road would allow machine access. The culvert near the upper end of B-R3-02 should be made passable to 0+ coho. Some select debris removal may be needed in the upper reaches of the channel. Electroshock and/or minnow trap to determine current extent of fish utilization.

GPS: (decimal degrees, Datum WGS84): 11/27/02
upper project - N47.93580, W124.45264
lower project - N47.93264, W124.45252
channel egress - N47.93132, W124.45304

POND NAME: Tall Timbers Pond **POND DATA SUPPLEMENT**

DATE: 1/5/89 **OBSERVER:** Nettnin

	INLET	OUTLET
WATER TEMPERATURE:	47 F	47 F

POND SIZE:

LENGTH - 120 m
WIDTH - 30 m
EST. MAXIMUM DEPTH - 2 - 3ft

WATER SOURCE: Although several springs were seen in B-R3-02 below the pond, none were observed flowing into the pond itself. If it is not fed by subsurface springs, then the pond would depend largely on surface run off.

FISH ACCESS & CURRENT USE: Fish access appears doubtful. The culvert at the pond's outlet is plugged with debris. No fish were observed in the pond.

TYPE & AMOUNT OF IN POND COVER: Lots of logging slash and some LOD. Overhanging brush and some aquatic vegetation.

COMMENTS & RECOMMENDATIONS: This small pond is located at the extreme upper end of B-R3-02. The pond appears to exist largely because of the damming effect of a road and culvert at its lower end. Minnow trapping and/or electro-fishing are recommended to determine if fish are currently utilizing the pond. Should clean out and/or replace the culvert so as to insure fish access to the pond. Also may wish to remove some of the exess logging slash from the pond in order to avoid a high B.O.D.

DATE: 2/9/89 **OBSERVER:** Nettnin
Expected pond in upper channel to be very low or dry. However, water level was higher than expected. There was still a trickle of water flowing out of the pond. The flow in the mid and lower reaches of the channel appear similar to the flows seen on the initial survey. Set a minnow trap in the middle reach of the channel. Trap was baited with salmon roe.

DATE: 2/10/89 **OBSERVER:** King, Young, Nettnin
Fished minnow trap that was set 2/9/89 (see above). The trap had fished for about 16 hours. 3 coho, 2 sculpins and 1 trout were captured. Water temperature in the channel was 44 F. A spring near the trap was measured at 48 F. A minnow trap was set along the left bank of the pond at the upper end of the channel. The trap was set in 2 to 3 ft of water and under small woody debris. It was baited with salmon roe. A dissolved oxygen measurement was taken near the lower end of the pond. Results were recorded by D.K.

DATE: 2/14/89 **OBSERVER:** Nettnin
Fished the minnow trap that was set in the upper pond on 2-10-89 (see above). Only 2 water beetles were found in the trap. The pond level had dropped to below the bottom of the culvert but water was still perking through the road fill. As the river has dropped below the level of the channel at its mouth, B-R3-02 still appears accessible to fish. At these lower flows B-R3-02 enters the river at a glide. A small eddy occurs just downstream.

DATE: 5/10/89
These observations were made during an extended dry period. There has been no significant rainfall since early April. Though the water level has dropped considerably since the last observation, there is still a significant amount of water in the pond at the upper end of the channel. This is especially true in light of the current dry spell.

Flow in the middle reach of the channel (i.e. near the minnow trapping site) is good. The springs in this reach still appear healthy. The water temperature in the channel was at 49 F. Water in the springs was at 48 F.

DATE : 8/2/89 **OBSERVER:** Young

It has been a rather cool and damp summer. The pond area of B-R3-02 (i.e.upstream of the road crossing) is completely dry. A trickle of water (at 10 C) was seen in the lower third of the channel. Flow at the mouth of the channel was less than 0.1 cfs. Water temperature at the mouth was 11.5 C while the river temp was at 15 C. The area adjacent to the middle and upper reaches of the channel has recently been slash burned. Some of the larger stumps are still smoldering.

DATE: 8/29/89 **OBSERVER:** King

Channel watered in midsection due to beaver dams, but the lower end is shallow and spreads out across a large gravel bar on the Bogachiel R. The lower most beaver dams block access.

Water temp. at mouth = 54°

Water temp. at beaver dam in mid-section = 59°

DATE: 10/89

Installed upstream-downstream fry trap (see trapping data for results.

DATE: 9/26/89

Outlet appears plugged at this flow. Springs flowing midway in channel.

Water temp. = 49°

River temp. = 54°

DATE: 11/8/89

Flow had picked up but fish weren't moving. Entrance was backwatered into base of steep gradient section.

DATE: 11/22/89

Good flow throughout. Pond above road crossing has filled to the culvert and is running out. Culvert was placed too high and passage is blocked at the downstream end. It appears that deepening of the vegetated sections of the channel would definitely benefit the rearing habitat. Access at the mouth looks good. The flood during Nov. 7-9 raised the Bogachiel water level at the mouth by about 6 feet.

DATE: 12/1/89 **OBSERVER:** Young, Nettnin

Two minnow traps were baited with "Pautzke's" single eggs and cluster eggs (from D.K.'s Special Skeins). Both traps were set in the pond above the road crossing. One trap was set along on the west bank of the pond near some woody debris. The other trap was set along the east bank of the pond between clumps of sedges. Both traps were within 50 m of the road crossing and both were set in 1 to 2 ft of water. The water in the pond is very clear.

DATE: 12/6/89 **OBSERVER:** Nettnin

The traps that were set on 12-1 were fished. No fish were caught in either trap. Traps were not reset.

Date: 12/18/89 **OBSERVER:** King

Large beaver dams are still in place. No rain for 2 weeks. Flow is very low and dams are impassable. Very little flow through alder grove. Flooding of early December raised Bogachiel 8 to 10 feet but doesn't look like it backwatered lowest beaver dam which is about 6 feet high and is up the channel quite a ways. Attraction at mouth is questionable at normal flows.

DATE: 3/29 to 3/31/90 **OBSERVER:** Mosely, Darrow

The traps were baited with sugar cured salmon roe and set on the pond bottom in 2-3 ft of water. There is some woody debris, but aquatic vegetation is the main source of cover. The banks have a little logging debris but were recently burned.

All trap sites were set in the pond at the upper end of this channel. There was a good flow through the outlet culvert when the traps were set, however the outlet was dry by April 12. This pond has no overhead cover. Instream cover is good with woody debris and aquatic vegetation common to spring systems. The adjacent land was recently burned and bank side cover is mainly logging slash. Three traps were set, however no fish were caught. Mergansers were present on the pond when traps were pulled.

MINNOW TRAPPING REPORT

TRAP	DATE SET	TEMP	DATE PULLED	TEMP	CATCH COHO	TROUT RBT	TROUT CUTT	TROUT 0+	COTTID
1	3/29	11.0°C	3/31	10.5°C	0	0	0	0	0
2	3/29	11.0°C	3/31	10.5°C	0	0	0	0	0
3	3/29	11.0°C	3/21	10.5°C	0	0	0	0	0
				TOTALS:	0	0	0	0	0

DATE: Summer 90 **OBSERVER:** King, Young, Nettnin
A concrete vault type control/fishway was installed to create a pond for over winter coho rearing. Two plank controls were also installed below the vault as part of the fishway.

DATE: 11/19/91 **OBSERVER:** Nettnin
On 7/24/91 a spillway was added to reduce the amount of flow through the fishway. Two controls were added at the upper end of the created pond for additional habitat. Work was also done at the mouth to increase recruitment into the channel. A log was placed in the bank on the upstream side of the channel. Debris and rocks were placed in the river. High water a few days later broke the debris lose, but the rocks and the log stayed in place causing some scouring at the mouth of the channel deepening the entrance.

DATE: 3/23/92 **OBSERVER:** Darrow, Slack
Three minnow traps were set in the pond at the upper end of the channel to see if fry were getting into the pond. No fish were captured after 24 hours of fishing.

It has been observed over the last two years, that when the pond level drops in the spring there isn't sufficient rain fall to recharge it. So any thing that gets in may not be able to get out before it drys up. Because of this information it has been decided to raise the culvert to hold a reservoir of water but prevent fish from entering.

DATE: 7/30/92 **OBSERVER:** Nettnin
The plank controls that were installed in 1991 had not sealed during the winter. These were sealed with more back fill and tamping.

The outlet of the culvert from the upper pond was modified to prevent fry from entering the pond and becoming stranded. The gravel was removed below the outlet and replaced with larger rock to prevent a plunge pool from developing.

Crew days: 0.7 (crew days based on a 10 man crew working 8 hrs/day.

DATE: 5/5/95 **OBSERVER:** Powell
The following water chemistry was observed on this date:

pH: 7.0
D.O.: 12 mg/l
Temp.: 11 C
Water Hardness - CaCO3: 50 ppm

DATE: 7/25/95 **OBSERVER:** Nettnin
Installed four boulders and four logs at the mouth to enhance the entrance conditions and improve attraction to the site. The logs and boulders were placed by helicopter and then tied together with cable and Hilti epoxy cement.

Material used: 150 ft of ⅝ in. aircraft cable
10 3 in. Staples
4 ⅝ in. Cable clamps
Two tubes of Hilti epoxy cement

DATE: 1/9/96 **OBSERVER:** King
Log and boulder structure at the mouth have shifted downstream a few feet but are still secure and are collecting woody debris.

DATE: 4-14-96 **OBSERVER:** Darrow
Project and structures are all functioning; boulder/log structure at entrance has held up and recruited additional debris. About 200 hatchery steelhead (avg 145 mm) moved into system this winter when a hatchery pond had flooded. We have had steady small amounts of emigrants, both coho and rainbows. The coho have grown well and look good.

DATE: July 96 **OBSERVER:** Nettnin
Terminated trapping this site. Removed all trapping materials.
Raised the number two weir about six inches to allow better access to the fishway for juveniles.

DATE: 10/24/96 **OBSERVER:** Powell
Fishway looked good. Flow was ~1/2 CFS. Upper end was dry. The last ~3 feet at the egress was subsurface under debris and silt; it is doubtful that fish could access channel - I opened egress up. Attraction logs appeared high on bank with one snagged in an adjacent tree. Attraction logs have accumulated additional logs and stumps. We are no longer trapping this site.

DATE: 4/1/97 **OBSERVER:** Darrow
Upper end pond is very full with culvert running almost half full (~2.5 cfs). Beaver has moved in and plugged fishway with debris. Cleared debris from fishway - will need to check on a routine bases. Beaver has cut many alders along banks, and large alders have been toppling and dying. Anchor structure at egress is intact and has captured additional debris. Coho fry and pre-smolts were observed in confluence area. Coho and trout were observed in project pond.

DATE: 9/19/97 **OBSERVER:** Nettnin
Active beaver has fishway blocked.
Partially opened fishway.
Attraction structure at the mouth is recruiting debris and forming a better entrance.

DATE: 10/97 **OBSERVER:** Darrow
Cleared beaver debris from fishway and upper culvert. Beaver has been leaving fishway alone (just recently) but continues to add debris inside the culvert. Pond above culvert has filled up early this season. Will routinely monitor this site.

DATE: 3/10/98 **OBSERVER:** Darrow
Had to clear some debris from upper end of culvert. Plank controls and fishway were fine. Anchor structures at egresses were okay too. Observed some salmonids in the project.

DATE: 10/27/98 **OBSERVER:** Darrow
The upper pond above the culvert is completely dry. The middle control boards are dry with just a little muddy spot above the upper board. The lower end fishway had just a trickle of water going through the notch. There was a small mud and stick dam with numerous gaps that is not impeding flow along the barrier fence above the fishway, and a smaller one along the first control plank below the fishway that I cleared. Revetment structure at the river confluence is intact and anchor lines are secure. Problems here consist of encroaching conifer and blackberry vine growth choking access trail and inevitable beaver activity. No fish were observed.

DATE: 4/11/99 **OBSERVER:** Darrow
Upper pond, above culvert, is full and flowing ~ 0.75 - 1 CFS. Some snags did have pipe partially plugged. All controls and fishway were clear. Rocks, logs and anchor trees/cables were intact and have collected drift debris. Observed rises on middle area of pond.

DATE: 10/11/99 **OBSERVER:** Darrow
Upper pond, above culvert is dry. Also, plank control sections (above fishway) are dry. Beaver debris in fishway and beaver dam directly above fishway. Cleaned and cleared debris. Boulders/logs at egress are intact and collecting debris.

DATE: 4/8/00 **OBSERVER:** Darrow

High flows pushed a large piece of debris into the culvert at the outlet of the upper pond. Wood was cut and removed from the culvert. There is some seepage trickling through the fill, under the culvert. The fishway was flowing, and the barrier screen was cleared of debris. Observed some surface activity above the fishway.

DATE: 10/4/00 **OBSERVER:** Darrow

The DNR Honor Camp crew was used to clear accumulated beaver debris from barrier fence at fishway and at controls. A beaver was observed upstream of the fishway. The plank controls upstream of the fishway appear to be a barrier during low flows due to beaver activity. This area needs to be examined.

DATE: 12/10/00 **OBSERVER:** Darrow

MINNOW TRAPPING REPORT

TRAP	DATE SET	TEMP	DATE PULLED	TEMP	CATCH COHO	RBT	CUTT	0+	COTTID
1	12/9	8°C	12/10	8°C	0	0	0	0	42
2	12/9	8°C	12/10	8°C	0	1	0	1	13
3	12/9	8°C	12/10	8°C	0	0	3	0	14
4	12/9	8°C	12/10	8°C	0	0	1	0	6
5	12/9	8°C	12/10	8°C	0	0	0	0	51
6	12/9	8°C	12/10	8°C	0	0	0	0	34
7	12/9	8°C	12/10	8°C	0	0	0	0	27
8	12/9	8°C	12/10	8°C	0	0	0	0	11
9	12/9	8°C	12/10	8°C	0	0	0	0	9
10	12/9	8°C	12/10	8°C	3	0	0	0	5
				TOTALS:	3	1	4	1	212

Average size: 90.0 mm STD: 2.9 Min-Max: 86-93 Count: 3 fish

COMMENTS:

-Trap 1 was placed half way up the pond area.
-Trap 2 was placed about 35 meters upstream of fishway.
-Trap 3 was placed 1.5 meters upstream of fishway on right bank.
-Trap 4 was placed about 18 - 20 meters upstream of fishway.
-Trap 5 was placed about 40 meters upstream of fishway.
-Trap 6 was placed about 70 meters upstream of fishway.
-Trap 7 was placed about 20 meters upstream of trap 6.
-Trap 8 was placed directly upstream of trap 7.
-Trap 9 was placed about 10 meters upstream of trap 8.
-Trap 10 was placed upstream of trap 9, about mid way between fishway and upper end culvert. This trap was placed in the last of the water. It was dry from that point all the way upstream. Dryer than normal fall and winter.

DATE: 4/14/01 **OBSERVER:** Darrow

A large school of big trout were observed in the lower mid pond area. Lower than average precipitation this winter and early spring resulted in upper pond not flowing through the culvert.

DATE: 4/10/01 **OBSERVER:** Darrow

MINNOW TRAPPING REPORT

TRAP	DATE SET	TEMP	DATE PULLED	TEMP	CATCH COHO	RBT	CUTT	0+	COTTID
1	4/10	8°C	4/11	9°C	0	0	0	0	31
2	4/10	8°C	4/11	9°C	0	0	0	0	13
3	4/10	8°C	4/11	9°C	0	0	0	0	52
4	4/10	8°C	4/11	9°C	0	0	0	0	26
5	4/10	8°C	4/11	9°C	0	0	0	0	9
6	4/10	8°C	4/11	9°C	0	0	0	0	0
7	4/10	8°C	4/11	9°C	0	0	0	0	14
8	4/10	8°C	4/11	9°C	0	0	0	0	29
9	4/10	8°C	4/11	9°C	0	0	0	0	23
10	4/10	8°C	4/11	9°C	0	0	0	0	27
				TOTALS:	0	0	0	0	224

COMMENTS:

-Trap 1 was placed upstream about mid way between fishway and upper end culvert. This trap was placed in the last of the water. It was shallow to dry from that point all the way upstream. Dryer than normal fall and winter.
-Trap 2 was placed about 20 meters downstream of trap 1.
-Trap 2 was placed about 25 meters downstream of trap 2.
-Trap 3 was placed about 50 meters upstream of fishway.
-Trap 4 was placed about 20 meters upstream of fishway.
-Trap 5 was placed about 40 meters upstream of fishway.
-Trap 6 was placed directly upstream of fishway on the left bank. A large group of trout were observed.
-Trap 7 was placed about 15 meters upstream of fishway on the right bank.
-Trap 8 was placed about 27 meters upstream of trap 7.
-Trap 9 was placed about midway up pond area on the right bank.
-Trap 10 was placed at the upper end of wetted area, near trap 1.

DATE: 10/23/01 **OBSERVER:** Darrow

Removed beaver dam at barrier screen at fishway. Cleaned debris and aquatic growth in fishway and other controls. This is an active beaver area.

DATE: 5/14/02 **OBSERVER:** Darrow

Lots of beaver activity. Cleared the bad spots to improve fish passage. Upper pond was watered but not flowing through the culvert. Water was seeping through the fill along side of the culvert. Coho fry were observed in the lower reach. Trout and smolts were seen in the lower pond. Egress area has changed over the years with large amounts of silt deposits. Anchored logs appear okay at confluence.

DATE: 11/27/02 **OBSERVER:** Nettnin

The project looks good overall. There is beaver debris partially blocking the fishway. It was modified to allow fry to pass. The smaller logs on the structure at the egress have shifted downstream some but appear to be tied to boulders. The debris that has recruited on the structure has trapped a lot of sand that has settled in the channel. This has caused the stream to subsurface the last 10 meters. Scheduled for work in the summer of 03.

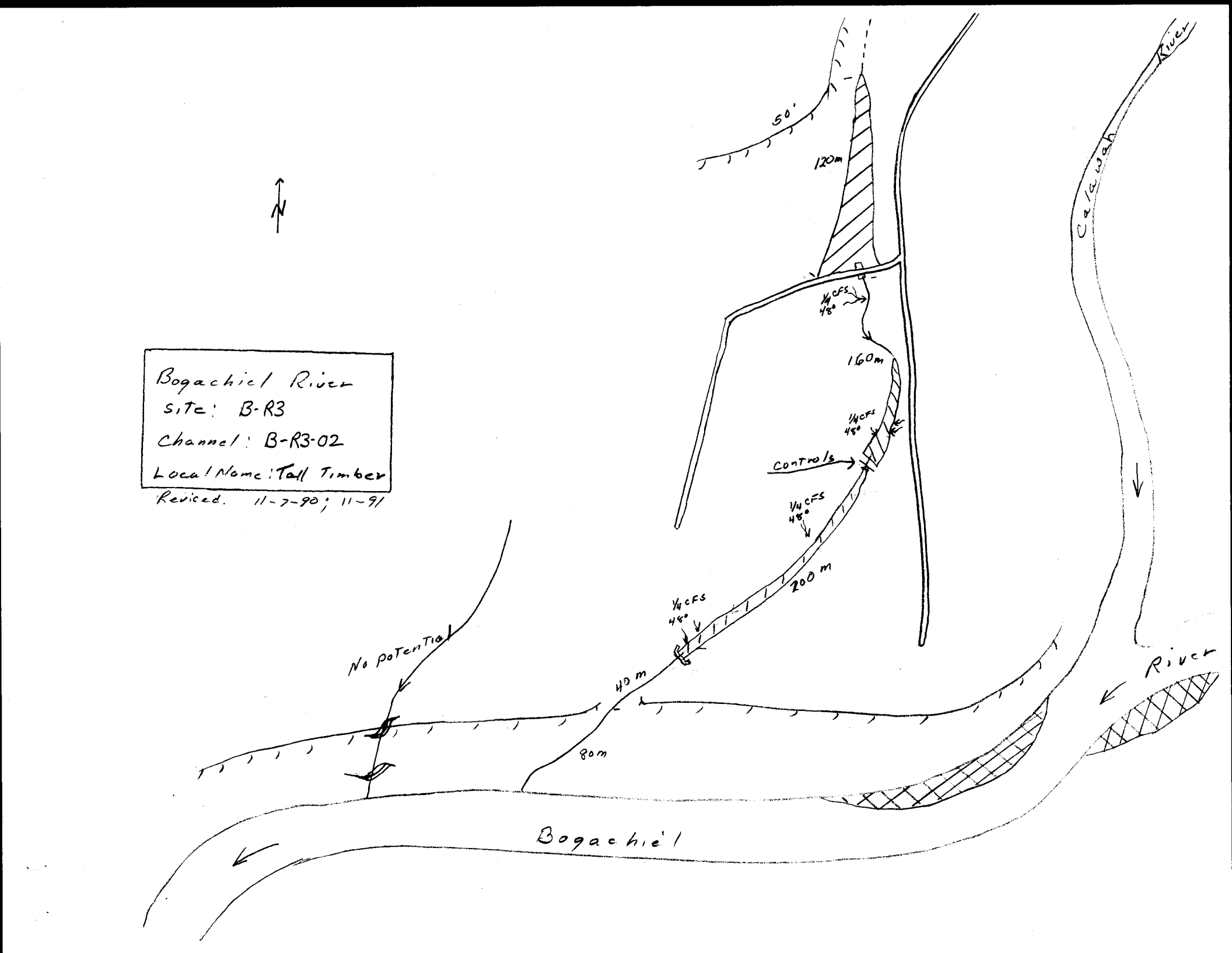
GPS: (decimal degrees, Datum WGS84):

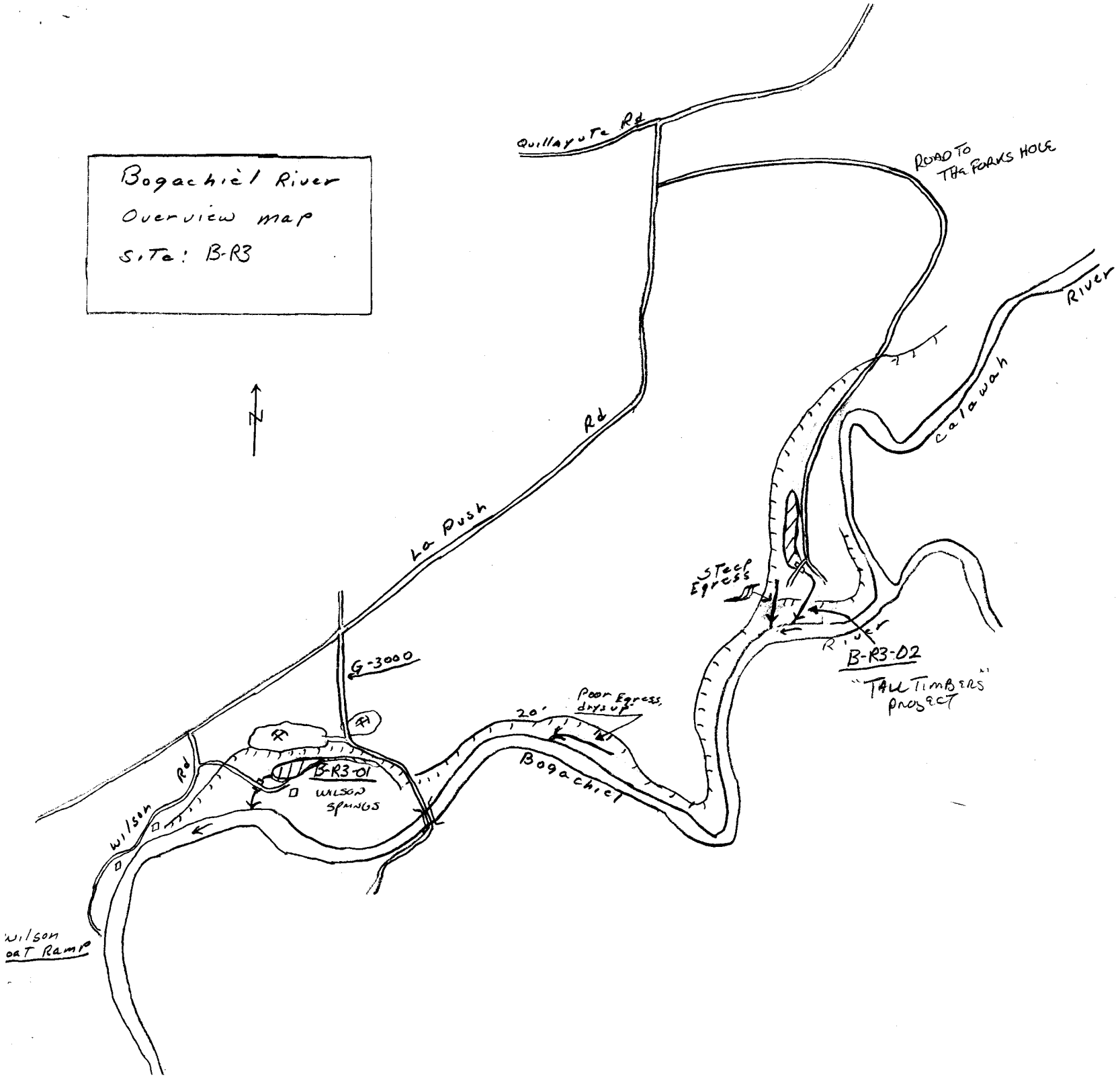
upper project - N47.93580, W124.45264, lower project - N47.93264, W124.45252
channel egress - N47.93132, W124.45304

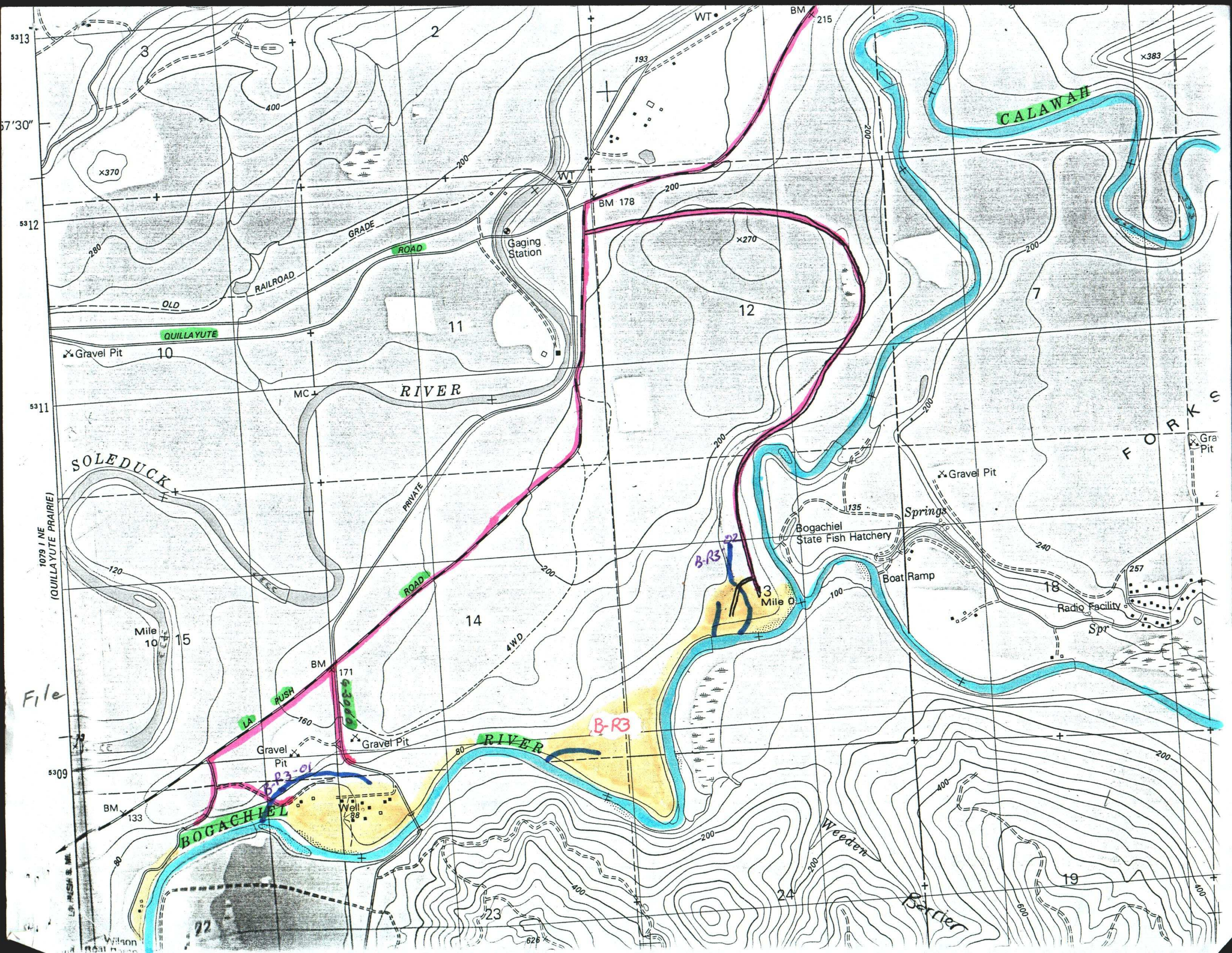
DATE: 3/27/03 **OBSERVER:** King
The fishway is passable and had a good flow. There were a lot of rises observed on the pond.

DATE: 10/13/03 **OBSERVER:** Nettnin
Lined upper face weirs in the fishway with felt to seal them and removed beaver debris. Channel flowing, but very low.

DATE: 10/29/03 **OBSERVER:** Nettnin
Project looks good.


Bogachiel River
Site: B-R3
Channel: B-R3-02
Local Name: Tall Timber
Revised. 11-7-90; 11-91
N
50'
120m
1/4 CFS
45°
160m
1/4 CFS
45°
Controls
1/4 CFS
45°
200 m
1/4 CFS
45°
No Potential
40 m
80m
Bogachiel
Calawah River
River


Bogachiel River
Overview map
Site: B-R3
Quillayute Rd
Road to The Forks Hole
River
Calawah
La Push Rd
N
Steep Egress
River
B-R3-02
"Tall Timbers" project
G-3000
Poor Egress, dry up
20'
B-R3-01
Wilson Springs
Wilson Rd
Bogachiel
Wilson Boat Ramp



CALAWAH
FORKS
Gravel Pit
Springs
Bogachiel State Fish Hatchery
Boat Ramp
Radio Facility
Spr
Gaging Station
BM 178
BM 215
WT
GRADE
ROAD
RAILROAD
OLD
QUILLAYUTE
RIVER
SOLEDUCK
PRIVATE
ROAD
4WD
LA PUSH
BM 171
G-3000
Gravel Pit
B-R3
B-R3-01
BOGACHIEL
RIVER
Well
Mile 0
Mile 10
BM 133
Weeden
Barrier
Wilson
1079 I NE (QUILLAYUTE PRAIRIE)
File